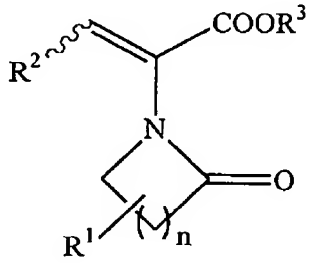
Docket: 71360 (US02) PATENT

Amendments to the Claims

Claims 1 – 47 (Previously Canceled)

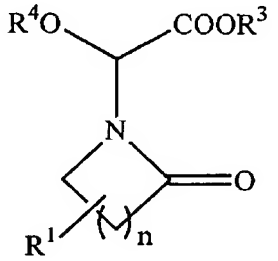
48. (Amended) A method for producing a compound having the formula VI



VI

comprising

(a) reacting a compound having the formula III



III

with PX_3, wherein X is fluoride, chloride, bromide, or iodide, to produce a halogenated lactam;

(b) reacting the halogenated lactam produced in step (a) with a phosphite having the formula $P(OR^6)_3$, wherein R^6 is ~~substituted or unsubstituted,~~ branched or straight chain C_1 to C_{20} alkyl, branched or straight chain C_1 to C_{20} alkyl substituted with one to three groups selected from cyano,

hydroxy, aryl, halogen, -OR, -CO_2R, and –OCOR, ~~or substituted or unsubstituted~~ C_3 to C_8 cycloalkyl, or C_3 to C_8 cycloalkyl substituted with one to three groups selected from cyano, hydroxy, aryl, halogen, -OR, -CO_2R, and -OCOR, to produce a phosphonated lactam; and

(c) reacting the phosphonated lactam produced in step (b) with an aldehyde having the formula $HC(O)R^2$ in the presence of a base,

wherein steps (a), (b), and (c) are performed *in situ*, and

wherein R^1, R^2, R^3 and R^4 are, independently, ~~substituted or unsubstituted,~~ branched or straight chain C_1 to C_{20} alkyl; branched or straight chain C_1 to C_{20} alkyl substituted with one to three groups selected from cyano, hydroxy, aryl, halogen, -OR, -CO_2R, and -OCOR; ~~substituted or unsubstituted~~ C_3 to C_8 cycloalkyl; C_3 to C_8 cycloalkyl substituted with one to three groups selected from cyano, hydroxy, aryl, halogen, -OR, -CO_2R, and –OCOR; ~~substituted or unsubstituted~~ C_6 to C_{20} aryl; C_6 to C_{20} aryl substituted with one to three groups selected from C_1-C_6-alkyl, C_6-C_{10} aryl, C_1-C_6-alkoxy, halogen, carboxy, cyano, C_1-C_6-alkanoyloxy, C_1-C_6-alkylthio, C_1-C_6-alkylsulfonyl, trifluoromethyl, hydroxy, C_2-C_6-alkoxycarbonyl, C_2-C_6-alkanoylamino, -OR', SR', -SO_2R', -$NHSO_2$R' or -$NHCO_2$R'; ~~or substituted or unsubstituted C_4 to C_{20} heteroaryl,~~ or a 5- or 6-membered aromatic ring containing 1 to 3 heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen, which may be substituted with up to three groups selected from C_1-C_6-alkyl, C_1-C_6-alkoxy, halogen, C_1-C_6-alkylthio, aryl, arylthio, aryloxy, C_2-C_6-alkoxycarbonyl and C_2-C_6-alkanoylamino; R is C_1 to C_6 alkyl and R' is phenyl, naphthyl, or phenyl or naphthyl substituted with one to three groups selected from C_1-C_6-alkyl, C_6-C_{10} aryl, C_1-C_6-alkoxy or halogen; R^1, R^2 and R^4 may, independently, be hydrogen; and n is ~~from 0 to 5~~ 2.

Claims 49 and 50 (Previously Canceled)

51. (Amended) The method of Claim 48 wherein ~~n is 2 and~~ R^1 is hydrogen.

52. (Previously Added) The method of Claim 51 wherein R^2 and R^3 are methyl.

53. (Previously Added) The method of Claim 51 wherein R^2 is methyl and R^3 is ethyl.

54. (Previously Added) The method of Claim 52 wherein R^4 is methyl or ethyl.

55. (Previously Added) The method of Claim 53 wherein R^4 is methyl.

56. (Previously Added) The method of Claim 52 or 53 wherein R^6 is methyl or ethyl.

57. (Previously Added) The method of claim 48 wherein the base is non-hydroxide base with a pKa of about 13 or above.

58. (Previously Added) The method of claim 57 wherein the base is an amidine base or a guanidine base.

59. (Amended) The method of claim 57 wherein the base is 1,5-diazabicyclo[4.3.0]non-5-ene (DBN), 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU), or ~~tetramethylguanid~~ tetramethylguanidine.